

Arizona Department of Environmental Quality White Paper for Permit Fee Amendments August 3, 2007

I. AIR PERMIT ADMINISTRATION FUND (APAF) BALANCE OVERVIEW

Arizona Revised Statutes, Title 49, Chapter 3, Article 2, Section 455 (A.R.S. § 49-455) established what is commonly referred to the Air Permits Administration Fund (APAF). Pursuant to A.R.S. § 49-426(E), the Director of ADEQ was to establish by rule, a system of fees that was consistent with or equivalent to the fees that were prescribed by Section 502 of the Clean Air Act. In addition, a system for collecting fees for permitting and inspecting sources which were required to obtain air quality permits pursuant only to State law.

When first established in 1993, revenues from the fee rule were primarily from annual emission-based fees assessed on sources subject to Title V of the Clean Air Act (40 CFR Part 70). One of the recognized equity issues related to the initial program was that the vast majority of revenues came from a relatively small number of sources, which financed a significant portion of program costs or activities related to a large number of small permitted sources. In addition, the dependence upon emissions fees made program funding vulnerable to curtailments in source operations.

ADEQ developed an updated workload analysis in 1999 of the costs associated with all components of the air quality programs and initiated a stakeholder process to develop a modified structure for revenues that would provide a more stable revenue stream and more equitably distribute the cost of the permitting programs to the sources those programs cover. Based upon this information, the stakeholder community hired the Kendall Group, Inc. to develop a model that would balance revenue-generating activities such as emissions fees, annual administrative/inspection fees, and hourly billable rates with the expenditures necessary to support the permitting and compliance programs for the Air Quality Division. This model resulted in a new fee rule that went into effect on January 1, 2002.

Revenues in Fiscal Year 2003, the first year of the revised fee rule, failed to meet projections. Total expenditures for that Fiscal Year were \$5.1 million, while revenues only realized \$3.4 million. Beginning in Fiscal Year 2004 (July 1, 2003 – June 30, 2004), future year projections for the APAF have struggled to demonstrate on-going fund solvency. In order to ensure the projected solvency of the fund, subsidies from other funds (general and federal) were used until more permanent measures could be employed. In Fiscal Year 2005, ADEQ retained the services of the Kendall Group, Inc. to revisit the model used to establish the fee rule, resulting in a revision in November of 2004. This revision once again caused revenues to more closely match projected expenditures. While the 2004 revisions immediately stopped the significant deficiencies in revenues, they did not permanently resolve insolvency issues.

Recent projections for the APAF forecast fund insolvency in October of 2008 (Fiscal Year 2009). The Governor's Office of Strategic Planning and Budgets states that a fund demonstrates insolvency when an ending monthly balance that has less than three months of operational monies. Using this definition, projections forecast that the APAF would be insolvent in November of 2007, while still reflecting a positive cash balance.

II. HISTORICAL EXPENDITURES, REVENUES AND OBJECTIVES

Historically, projections forecasting insolvency were considered to be a result of the failure to realize projected revenues. Past fee rule corrections focused on ensuring that revenues exactly matched the expenditures necessary to maintain the existing level of service. A review of expenditures necessary to ensure the continued successful implementation of the air quality permitting and compliance programs for the long term has revealed that additional expenditures are also necessary. The objectives of the proposed revision to the Air Quality fee rule are twofold, and are as follows:

A. Air Permit Administration Fund Solvency

Historical expenditures have amounted to approximately \$5,100,000 per year. Although the existing fee rule accounts for inflation on the revenue side, it has not been able to accommodate State-wide salary raises approved by the Legislature. In addition, this current expenditure amount does not allow the program to grow to accommodate new complex sources of air pollution, or new legislative and EPA mandates. Modifying the fee rule as described in this document will result in the increase of projected revenues from \$5,100,000 per year, to \$7,789,300, assuring long term solvency of the Fund, as well as restoring a moderate amount of Fund balance.

B. Workload And Existing Staffing Levels

1. Compliance Monitoring Strategy & Performance Measures

Current air quality permitting practices have placed a high premium on providing assurance that the regulated entity can comply with the emissions limitations and work practice standards included in the permit. As a direct result, the amount of monitoring, record keeping, reporting and testing requirements in permits have grown. The number of air quality compliance staff to review the additional documentation and observe testing, however, has remained relatively constant during this same time period. In June of 2007, House Bill 2781 approved the addition of two new positions to assist in the administration of the stationary source compliance assurance program.

In December of 2005, ADEQ sent a letter to EPA Region IX, committing to a compliance monitoring strategy for federal fiscal years 2006 through 2011. As part of that strategy, ADEQ committed to schedules for conducting full compliance evaluations for all sources holding a Title V permit, as well as all sources that have

permits that allow emissions above 80% of the major source threshold (SM-80). According to the compliance monitoring strategy, a full compliance evaluation includes a review of all reports and records required by the permit, a physical visit to inspect the facility, and review of all required stack testing information generated during that time period. According to the information in ADEQ's databases, there are 59 facilities that have been issued Class I - Title V operating permits, and another 233 facilities that may potentially qualify as SM-80s.

Most of the facilities that potentially qualify for SM-80 classification, including hot mix asphalt plants and crushing and screening facilities, are portable in nature. These facilities have increased the work load for ADEQ's inspectors. Stack testing in particular has dramatically increased as new rules and permits will result in more than 60 new annual performance tests and certifications that require ADEQ oversight. Statewide, ADEQ currently has six inspectors assigned to handle source inspections and complaints, and an additional four FTE to oversee stack tests.

In order to ensure continued compliance with the compliance monitoring strategy agreed upon with EPA, performance measures, including complaint response, and to ensure effective ADEQ presence at the increasing number of stack tests required by air quality permits, an additional five FTE are needed. These five FTE will allow for adequate oversight of performance testing, stationary source inspections, and complaint response in areas of the state where ADEQ does not have field offices (i.e. Yuma).

2. Proposed Arizona Clean Fuels, Yuma L.L.C. Refinery

In April of 2005, ADEQ issued the first ever air quality permit for a green-field refinery under the 1990 Clean Air Act amendments. The permit comprises more than 550 pages of state and federal regulations, and details a comprehensive compliance monitoring strategy that is unparalleled in any other air quality permit. Pursuant to discussions with California, New Mexico, and several other states that have issued air quality permits to refineries, ADEQ has estimated that an additional three FTE will be required for the refinery alone.

3. Ambient Air Modeling and Monitoring Requirements

Most new sources of air pollution that enter the State require an ambient air dispersion modeling analysis in order to demonstrate that the new emissions of air pollution will not result in a significant risk to public health. This modeling typically includes a review of conventional air pollutants, but may also include an analysis of hazardous air pollutants, if the facility's emissions fall subject to the Department's new Hazardous Air Pollution rule. As of December 9, 2006, AERMOD became the preferred regulatory model under 40 CFR Part 51, Appendix W. This model, with its three separate components is more complex and therefore more precise than its predecessors. As a result, ADEQ is experiencing an increased need for an additional FTE to review the air dispersion modeling analyses submitted with air quality permit

applications. The additional FTE will help streamline the permitting process, and ensure that the Department remains timely in its response to air quality permit applications.

In addition to modeling, many sources are required by their permits to operate ambient air monitoring systems, in order to quantify the actual impacts of air pollution emitted by the facility. For most new major sources of air pollution, public comment has indicated that the Department should require more monitoring that it has in the past. In addition, the public has increased its request for monitoring of sources that do not have the ability to operate an ambient air monitoring system themselves. As a result, ADEQ has identified a need for an additional FTE be created to assist in the operation of new ambient air monitors, and quality assure and check the data being submitted by permitted facilities that are operating such equipment pursuant to a permit condition.

4. Air Quality Records Clerk

In the past, the Air Quality Division was responsible for all of its own records retention and storage. In 2002, when the Arizona Department of Environmental Quality changed physical locations, the Air Quality Division's records were sent to a centralized records retention and storage area, along with files from some of the other Divisions. The Air Quality Division provided the centralized file room with an FTE funded by the General Fund to be the clerk responsible for handling the Division's files. In 2004, due to cuts in the Department's allotment of General Fund money, the records clerk position was lost.

In 2006, EPA Region IX conducted an audit of the Air Quality Permitting Program. One of the significant findings in that audit was that the Air Quality Division's files were not being handled in a manner that satisfied EPA. In an effort to provide additional records management, and to provide a single point of contact that handles the Air Quality Division's permitting and compliance files, ADEQ has identified a need for an additional FTE be created to serve as the Division's records clerk.

III. CHANGES REFLECTED IN THE 2007 FEE RULE DRAFT

Due to projections forecasting the insolvency of the APAF beginning in November of 2007, the model used to develop the fee rule was again revisited to determine if it accurately predicted the costs associated with implementing a permitting and compliance assurance program for stationary sources that emitted air pollution. The following sections detail changes to the 2004 fee rule model spreadsheet. The name of each sub-section refers to the name of a specific worksheet in the 2004 fee rule model that should be changed.

A. Permit Fee Rate Worksheet

Air Quality permit engineers are required to bill applicants for every hour spent processing an air quality permit application, producing an air quality permit, and

developing the supporting documentation. The engineer's time has been broken down into two major categories, program time and non-program time.

1. Non-Program Time

Non-program time is the category that includes such items as employee benefits (annual and sick leave, holidays), lost time due to employee turnover, and time spent doing work-related activities that are not otherwise billable. As compared to the 2004 estimates, the following changes are needed:

- Increase average employee annual leave usage rate from 96 to 120 hours per year:
 - Average length of service for permit engineers is greater than 3 years, meaning the average engineer generates annual leave at a rate of 4.62 hours per pay period;
 - All annual leave is assumed to be paid out annually - unspent accrued annual leave will be paid out to the employee at the time of separation.
- Increase average employee sick leave usage rate from 64 to 96 hours per year:
 - Business Continuity Planning preparing for pandemic flu;
 - Increased use of sick time already observed;
 - Increased use of sick time for caring for ill family members also observed.
- Increase lost time due to turnover from 106 to 166 hours per year.
 - Turnover is generally less than past rates, but the length of time necessary to fill vacant positions has increased for a variety of reasons. On the average, at least 1.5 FTEs that generate billable hours have been vacant over the course of a year (i.e. 10% vacancy). A 10% vacancy results in a loss of 208 hours per year per position.

2. Program Time

Program time is the category that includes activities that are directly related to the program, but may or may not be billable due to the fee rules in place. After reviewing the 2004 estimates, the following changes are included:

- Increase General Permit Development time from 50 to 60 hours per year per FTE
 - Renewed general permits observed to take approximately 500 hours of development time. With 9 active and contemplated general permits over 15 permit engineering positions, and 5 year permit terms $(9 \times 500) / (15 \times 5) = 60$ hours per year.

3. Updated Burdened Rate Calculation (Per FTE)

The term "burdened rate" is used to describe an hourly fee that accounts not only for the costs of providing a service, but also for other costs associated with providing that service. The burdened rate in ADEQ's air quality fee rule includes such costs as other operating expenses (i.e., supplies, office space, computer, etc.), indirect costs

(i.e., administrative support, payroll, technology support, etc.), and the costs of oversight (i.e., time spent by the supervisor, manager, and director).

a. Average Cost of Personnel Services

The average cost of personnel services has increased over time. In general, the cause for the increased cost of labor throughout the Division can be attributed to several factors, including, but not limited to, market demand for engineering and technical services, State-wide employee salary raises, the costs of retaining qualified personnel services. The only area where costs decreased was for technical services, where experienced staff has turned over and new or less experienced staff members have applied for the vacant positions.

- Decreased costs for Technical Services from \$49,500 to \$49,200 per year;
- Increased costs for Management/Supervisor Services from \$66,700 to \$68,200 per year;
- Increased costs for Support Staff Services from \$29,000 to \$30,300 per year.

4. Results of Changes

Making the changes described above results a 26% increase in the fee for each hour spent processing the permit or permit revision, from the current rate of \$105.80 to \$133.50 per hour.

B. Fixed_Allocation_Factors Work Sheet

1. Expenditure (“Revenue Needed”) Projections

As described in Section II, the target expenditures have been increased to \$7,789,300.

C. LPT_OPT1 Work Sheet

1. Correction to Fix Inherent Error in Model

During the Fiscal Year 2005 adjustment to the fee rule, both the administrative fees and emission fees were adjusted by the same factor of 8.46%. Sensitivity testing of the model demonstrated that changing the percentage associated with administrative fees changed only the emissions fees. Likewise, changing the percentage increase associated with the emissions fees had the effect of raising administrative fees for all sources. In order to correct this error, the names in Cells A14 and A15 were exchanged. Similar changes were made to the sheet named “SUMMARY”.

D. FlatBased Work Sheet

1. Class I - Title V Source Inventory

Since the Fiscal Year 2005 fee rule update, the following changes in active sources that are paying Class I - Title V fees have occurred:

- The number of landfills has decreased from 8 to 7
- The number of mining operations has increased from 6 to 7
- The number of “other” Title V sources has increased from 4 to 6
- The number of “other” Title V sources with CEMs has increased from 2 to 3

2. Class II - Title V Source Inventory

Since the Fiscal Year 2005 fee rule update, ADEQ has continued to observe the migration of its sources from individual permits to general permits, as demonstrated by the following changes in active sources that are paying Class II - Title V fees. Please note that the fee rule allows for inactive facilities to request a 50% reduction in administrative fees if they do not operate during the course of the previous calendar year. This 50% reduction is reflected as half (0.5) of a stationary source in the sections that follow.

- The number of stationary sources has decreased from 22.5 to 11
- The number of portable sources has decreased from 36 to 17
- The number of general permits has increased from 99.5 to 181
- The number of small sources has decreased from 26 to 24

3. Class II – Non-Title V Source Inventory

Since the Fiscal Year 2005 fee rule update, ADEQ has continued to observe the migration of its sources from individual permits to general permits, as demonstrated by the following changes in active sources that are paying Class II - Title V fees:

- The number of stationary sources has decreased from 101.5 to 74
- The number of portable sources has decreased from 75.5 to 56
- The number of general permits has increased from 285 to 316
- The number of gas stations has decreased from 2 to 0
 - ADEQ eliminated the gasoline service station general permit in 2007.
- The number of crematories has decreased from 29.5 to 1
 - Only one of the existing crematories is not covered under a general permit.

4. Effects of Source Reclassification

Although the total number of facilities with an air quality permit rose from 734.5 in 2004, to 739 in 2007, the overall effect of the changes observed above proved detrimental to annual revenues. Many sources that had previously obtained individual permits took advantage of ADEQ’s efforts to increase flexibility and the functionality of its general permits. In 2004, general permits accounted for 384.5 (or 52%) of the 734.5 active permits. In 2006, general permits accounted for 497 (or 67%) of the 739 active permits.

In addition to flexibility and increased functionality, general permits generate significantly less revenue for ADEQ. Instead of per hour processing fees, general permits require a one time \$500 application fee. In addition, the annual administrative fees associated with general permits are significantly less than those charged to sources with individual permits.

All of these changes, when combined, decreased annual administrative fees from Title V sources by 5.3%, from \$2,339,980 in 2004, to \$2,215,730 in 2006. Annual administrative fees from non-Title V sources fell by 22.8%, from \$1,628,390 in 2004, to \$1,256,880 in 2006.

E. Summary Work Sheet

1. Correction to Fix Inherent Error in Model

As discussed in III.C.1 above, the names in cells A19 and A20 were exchanged so that the model functioned properly.

2. Revenue Projection as a Function of Expenditure

Previous fee rule models were optimized so that projected revenues would equal expenditures. Due to this limitation, previous versions of the fee rule could not react well to events such as State employee raises, the need to increase staffing, the need to retain existing staffing, career growth, or lost revenue due to abnormal and extended vacancies. Because the assumptions relied upon in the old fee rule did not hold true, the APAF balance decreased and revenues no longer equaled expenditures.

In order to ensure that the fee rule does not need to be continually reopened to adjust the underlying assumptions, ADEQ is changing the fee rule such that revenues will slightly outpace expenditures. Such a change will result in the prevention of future instances of insolvency (which the Governor's Office of Strategic Planning and Budgets defines as an ending monthly balance that is less than three months of operation expenses) in APAF.

3. Adjustments Percentages to Administrative and Emissions Fees

Implementation of the changes contained in III.A. and III.B will only result in a revenue production that is 75.1% of projected expenditures, or a fund deficiency of \$1,939,932 per year. In order to offset the additional costs, and implement the changes described in III.E.2, adjustments must also be made to the annual Administrative and Emissions fees. The approach for balancing projected revenues with expenditures is as follows:

APPROACH - Increase Fees for Emissions Fees paid by Title V sources to EPA's presumptive rate of approximately \$38.00 per ton, and offset the remaining imbalance using Administrative Fees:

- Increase Annual Administrative Fees for all sources by an average of 40%
- Increase Emissions Fees by 170%
 - Increases per ton of pollution emitted fee from \$14.17 to \$38.25

IV. COMPARISON OF COSTS PER HOUR AND TON, AND ANNUAL FEES

Under the modern unitary permitting program instituted in 1993, and as described in Section I, ADEQ has, for the past 14 years, followed a single structural format that charged fees that fall under one of three major categories: permit fees, emissions fees, and annual administrative fees. Although the structure of the fee rule has not changed significantly over the years, the total amount of money charged to each source has shifted over time.

In an effort to make the permitting and fee structures clearer for the regulated community, ADEQ created new terms to distinguish between the type of permit required, and the type of fee that the permitted source must pay. Class I permits would be issued to major sources of air pollution, and Class II permits would be issued to sources that were minor, or took limitations to avoid being classified as a major source (i.e. synthetic minor source). All Class I permits are issued pursuant to Title V of the Clean Air Act, making them Title V for fee purposes. Class II permits that are issued to synthetic minor sources, or sources that are otherwise required to have a permit pursuant to Title V of the Clean Air Act are also considered Title V for fee purposes. Those sources that require a permit pursuant only to state law are considered non-Title V for fee purposes. This had a profound impact on the applicable fee schedules for sources in 1993. This distinction remains relevant today, as it impacts the amount of annual administrative fees paid by each source.

Over the course of the first 11 years of running a unitary permitting program, as discussed in Section I, ADEQ has made three attempts to balance its revenues and expenditures associated with the administration of an air pollution permitting and compliance program. The following table describes the fees associated with each of the three rules.

Historical Fee Type	1993^{1,2,3}	2002	2004
Permit Fee (per hour)	Title V - \$53.00 Non-Title V -\$40.00	\$68.60	\$98.80
Emissions Fee (per ton)	\$28.15	\$12.21	\$13.24
Annual Administrative Fees (average per source)	Non-complex -\$1,443 Complex - \$3,292	\$3,574	\$3,874

The fees included in the Draft Rule Revision are as follows:

Fee Type	Approach
Permit Fee (per hour)	\$133.50
Emissions Fee (per ton)	\$38.25
Annual Administrative Fees (average per source)	\$6,371

V. RESULTS OF DECISION PACKAGE OPTIONS

Assuming that all fee rule goals are achieved in practice, these changes are expected to result in a sufficient fund balance to avoid insolvency in both the short and long term. For the years immediately following a rule change, APAF's fund balance would be expected to grow while the Department pursued additional expenditure authority to support legislative initiatives, as well as the continued implementation of air quality permitting and compliance operations. In future years, APAF is expected to be more resilient and flexible, allowing ADEQ to accommodate increasing staff salaries, and additional staffing requirements for inspecting the proposed Arizona Clean Fuels, Yuma L.L.C. refinery without requiring frequent revisions to the fee rule.

¹ Hourly Permit fees were only charged for new permits, and modifications to existing permits. Sources subject to Title V for fee purposes paid \$53.00 per hour, and sources that were non-Title V for fee purposes paid \$40.00 per hour.

² Emissions fees were to be adjusted by the Consumer Pricing Index (CPI) each year. In 2001, the actual per ton fee was approximately \$40.59 per ton of emissions, for the first 4,000 tons of pollution emitted, with the exception of Carbon Monoxide. Under the old fee rule, the emissions fees in 2006 would have been \$46.20 per ton. Minimum fees were also assessed.

³ Annual fees were required for sources that were not Title V for fee purposes, and included a permit processing fee, inspection fee, and performance testing fees. Different fees were charged for sources identified by rule as either non-complex or complex respectively.